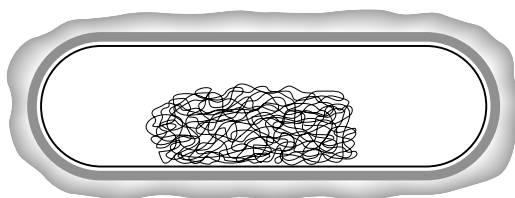


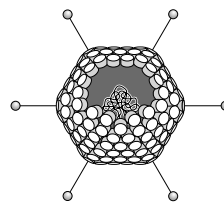
End of Unit test

Microbes and disease

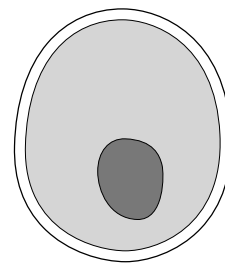
1 These diagrams show three kinds of micro-organisms.



A



B



C

Write the **letter** of the micro-organism that:

- a is the smallest of the three
- b is not made of a cell
- c is a kind of fungus
- d has a cell membrane and cytoplasm but no nucleus
- e could be used for making bread
- f might cause food poisoning

(6)

2 Complete these sentences, using some of these words.

antibiotics antibodies bacterium disinfectant immune
pathogen red vaccine virus white

A micro-organism that can cause disease is called a
If some of these micro-organisms get into your body, they may breed and make you ill. Your blood cells help to defend you against them, by making chemicals called

When you have had the disease once, your body will be ready to destroy that kind of micro-organism again, so you have become
to that disease. Another way of becoming immune is to be injected with a containing dead or weakened micro-organisms.

(5)

3 Emma made some yoghurt.

She washed a pot with boiling water, then let the pot cool.

She put some milk into the pot and added something called 'yoghurt starter culture'.

She covered the pot with clingfilm and left it in the refrigerator.

a Suggest what was in the 'yoghurt starter culture'.

.....

(1)

b Why was it a good idea to wash the pot out with boiling water?

.....

(1)

c Why was it important to let the pot cool down before adding the milk and starter culture?

.....

(1)

d Emma was disappointed to find that the milk was taking a very long time to turn into yoghurt. What could she have done to speed it up?

.....

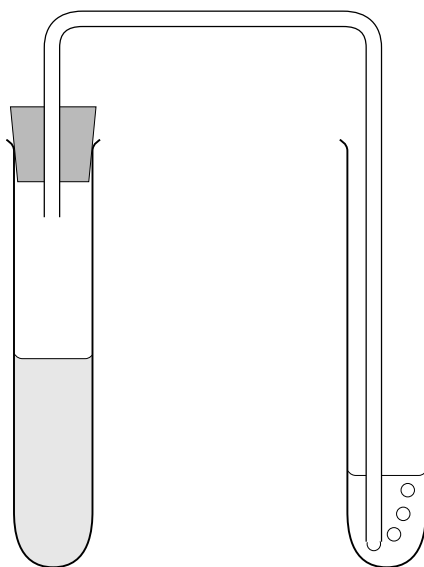
(1)

e Emma measured the pH of the milk before she put it into the pot, and found that it was 6.4. The pH of the yoghurt that she made was 5.2. What had been happening in the pot to cause this change in pH?

.....

(2)

4 This diagram shows the apparatus you could use to investigate respiration in yeast.



a On the diagram, draw label lines and label:

- i** solution containing yeast
- ii** lime water

(2)

- b What else needs to be added to the yeast solution, so that the yeast can respire?

..... (1)

- c Describe what you will see happening in the lime water, and explain why this happens.

.....

- d How does yeast respiration help us to make bread? (3)

.....

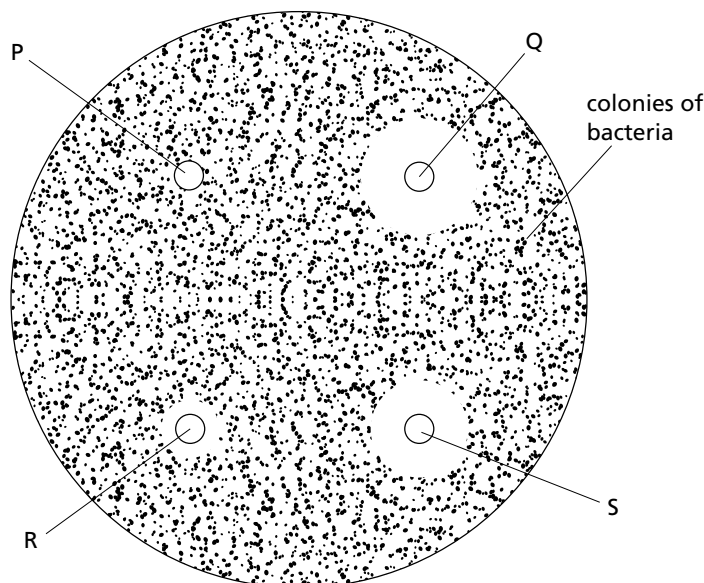
(2)

Total marks: 25

Extension

- 5 Dr Simms wanted to find out which antibiotic was most effective against a particular kind of bacteria.

She poured a liquid containing the bacteria over some agar jelly in a Petri dish. She soaked little circles of filter paper in four different antibiotics. She placed the filter paper circles onto the agar jelly. She taped the lid on, and put the dish into a warm place.



- a Dr Simms made sure the Petri dish and the agar jelly were sterile before she began her experiment. Suggest why this was important.

.....

.....

(2)

- b The clear areas around some of the discs showed that the antibiotics in these discs had stopped the bacteria reproducing and forming colonies.

Measure the diameter of the clear area around each disc. Record your results in a table in this space.

- c Which antibiotic was most effective at stopping the bacteria from reproducing?

.....

(4)

- d Suggest how the molecules of antibiotic had spread out into the agar jelly around the discs.

.....

.....

(1)

- e Explain why antibiotics are no use for curing 'flu.

.....

.....

(2)

(1)

Total marks for Extension: 10